

The Windows Logo Kit

Abstract:

This 5-day course provides information necessary for hardware and software developers to obtain the "Designed for Microsoft Windows" logo. Specifically, attendees will learn the goals of Microsoft for reliability, stability, and quality that contribute to end-user acceptance of hardware and their related drivers. This course includes extensive coverage of the Windows Hardware Quality Labs (WHQL) testing service.

Course Outline:

Chapter 1: Logo Testing – Introduction

- Why Certification?
- How the testing program works
- The Windows System and Device Requirements Document
- The Test Environment
- Submitting the Test Results
- Using the Signed Driver

Chapter 2: Windows System and Device Requirements

- Device Management and Installation
- Multi-function Devices
- Bus Controllers & Ports
- Device Connectivity
- Network Devices
- Input Devices
- Printing Devices
- Portable Devices
- Graphics Devices
- Audio Devices
- Streaming Media Devices
- Storage Devices
- General Recommendations

Chapter 3: The Driver Development Process

- Requirements
- Development Tasks
- Testing Tasks
- Tools used for driver development
- Tools used for driver testing

Chapter 4: Driver Test Manager

- Installation
- DTM Studio
- Designing Tests
- Running Tests
- Automated Software Installer (ASI)
- Submitting Results

Chapter 5: Driver Fundamentals

- Types of Drivers (Legacy, WDM, WDF)
- Structure of a Driver
- IRQL Levels
- ISR's and DPC's

Chapter 6: Windows Driver Framework

- KMDF and UMDF
- WDF Objects
- CoInstaller Routines
- UMDF and COM

Chapter 7: The "Plug and Play" Process

- Hardware Identifiers
- Device Classes
- INF Files
- The Device Stack
- AddDevice
- StartDevice
- StopDevice
- RemoveDevice
- Unloading a driver

Chapter 8: Multi-Function Printer Devices (extra chapter)

- Printing & Imaging Device Requirements
- XPS Requirements
- MFP Setup Architecture
- Scanner WIA Support

Chapter 9: Driver INF Files

- Purpose of the INF File
- INF File Syntax
- Required Sections
- Manufacturers Section
- Models Section
- Install Section



- CopyFiles Section
- Registry Sections